

NAME \_\_\_\_\_

Module 9 Characteristics of Geometric Shapes  
Lesson 4 Similar Polygons

### Lesson Objectives

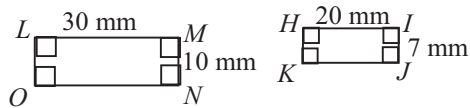
- Identify shapes that have similarity.
- Identify similar figures and explore their properties.
- Develop the properties of similar figures (ratio of sides and congruent angles).
- Apply proportional reasoning to solve problems involving congruent or similar shapes (e.g., create scale drawings).

### Subtopic 1 Similar Polygons

#### Similar Polygons

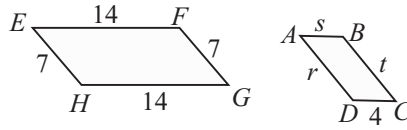
- Same \_\_\_\_\_
- Not necessarily the same \_\_\_\_\_
- \_\_\_\_\_ corresponding angles
- \_\_\_\_\_ corresponding sides

**1** Is rectangle  $LMNO$  similar to rectangle  $HIJK$ ?  
Explain why or why not.



**Subtopic 2** Finding Unknown Lengths

- 2 Find each unknown length in the similar parallelograms.



**Subtopic 3** Enlargements and Reductions

Scale Factor

The ratio of two \_\_\_\_\_ lengths in similar geometric figures

- 3 Find the 50% reduction of Luria's 4 in. by 6 in. photo by using a percent proportion.



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**Module 9**    **Characteristics of Geometric Shapes**  
**Lesson 4**    **Similar Polygons**

- ★ **4** An 8 in. by 10 in. photo is enlarged by 700%. What are the dimensions of the enlargement?



**Subtopic 4**    **Scale Drawings**

Scale Drawing

A drawing that is a \_\_\_\_\_ or enlargement of an \_\_\_\_\_ object

Scale

The \_\_\_\_\_ between the measure on a \_\_\_\_\_ and the actual measurement

- ★ **5** A 4 m by 6 m family room is being drawn on a blueprint with a scale of 1 cm = 2 m. What are the dimensions in the blueprint?

